

REMARKS/ARGUMENTS

The Office Action of June 25, 2008 has been carefully reviewed and these remarks are responsive thereto. Claims 1-2, 6-21 and 25-38 remain in this application. Claims 3-5 and 22-24 have been canceled without prejudice or disclaimer. Reconsideration and allowance of the instant application are respectfully requested.

Allowable Subject Matter

Preliminarily, Applicants note with appreciation the indication that the application contains allowable subject matter. Specifically, claims 13-19 and 31-38 have been allowed. A number of the allowed claims have been amended so as to be presented in a more preferred form.

Applicants' Information Disclosure Statement

Applicants Information Disclosure Statement (PTO-1449 form "List of Patents and Publications") submitted concurrently with the application on May 17, 2005 consisted of two sheets of citations. The first page has been fully initialed by the Examiner; however, page 2 [containing the NPL citation "Packet Access" by M. Ritola et al.] has not been initialed. Applicants request that an initialed copy of the second page of the PTO-1449 form be returned to the undersigned with the next communication.

Rejections under 35 U.S.C. § 101

Claim 38 stands rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. This rejection is traversed.

Amended claim 38 is directed to a computer readable medium storing instructions for execution by a processor. A computer readable medium is statutory¹. As such, Applicants respectfully request withdrawal of the corresponding rejection.

¹ See MPEP § 2106.01 (providing that when functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized).

Rejections under 35 U.S.C. § 103

Claims 1-12 and 20-30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. patent no. 6,374,117 to Denkert et al. (“Denkert”) in view of U.S. patent no. 6,104,998 to Galand et al. (“Galand”). Applicants respectfully traverse this rejection.

Amended independent claim 1 recites, among other features, “determining the priority in the transmission of said packets, by choosing the order in which said respective queues are visited as a function of . . . a second level priority, linked to both the occupancy level of the respective buffer and the propagation conditions of said respective channel.”

Notwithstanding whether a combination of the applied references is proper, Denkert and Galand (alone or in combination) fail to disclose at least the above-noted features recited in amended claim 1. Denkert describes a method and system for controlling transmit power as a function of delay-based quality of service (QoS) parameters of a user connection to a wireless packet data network. See Denkert at Abstract and col. 3, lines 10-35. More specifically, Denkert describes a method for adjusting transmit power as a function of queue delay. In particular, if a queue delay (Dqueue) exceeds a predefined delay threshold (Dmax), then a transmit power is increasing from a non-priority value (Ppc) to an increased priority value (Pprio) that ensures a relatively high value of throughput. See Denkert at col. 4, line 44 – col. 5, line 20 and Figure 3. Denkert at col. 5, lines 30-40 describes that the delay threshold decision block 320 may be fixed for all connections or can be related to a specific QoS profile of a service provided to a corresponding user. The usage of QoS (e.g., precedence class, delay class, reliability class, peak throughput class and mean throughput class) is further described in Denkert at col. 5, lines 49-65 and Figure 4 (substituting Number of Packets and QoS for Dmax of Figure 3). Even assuming (without admitting) that the Number of Packets may appropriately be analogized to an occupancy level of the respective buffer as recited in claim 1, Denkert is silent with respect to features related to determining a priority in a transmission of packets, by choosing the order in which said respective queues are visited as a function of propagation conditions of a respective channel as recited in claim 1.

Galand fails to remedy the deficiencies of Denkert described above with respect to claim 1. Instead, Galand is directed to a system for coding voice signals to optimize bandwidth

occupation in a high speed packet switching network. See Galand at Abstract. Galand at col. 5, lines 66 – col. 6, lines 10 describes that the digital network nodes of Figure 2 are designed to optimize network bandwidth occupation by enabling dynamic regulation of flow traffic, such that committed traffic is guaranteed delivery and excess traffic is discarded when a connection path suffers congestion. More specifically, Galand at col. 3, lines 46-64 and Figure 2 described three queues: a real-time (RT) queue, a non-real-time (NRT) queue, and a non-reserved (NR) queue, where RT is used to transport highest priority class traffic (e.g., voice or video signals), NRT is used to transport interactive data, and NR is used for file transfer. Galand at col. 3, lines 46-64 continues that upon request from a transmit line, a scheduler 27 first looks to the RT queue to serve a real-time packet, and if the RT queue is empty, scheduler 27 looks to the NRT queue to serve a non-real-time packet, and scheduler 27 looks to the NR queue to serve a non-reserved packet if the NRT queue is empty. Thus, in Galand, QoS parameters (e.g., a status of guaranteed delivery versus excess traffic) are analyzed to route traffic/packets to an appropriate QoS queue type (e.g., RT, NRT, or NR). Galand is silent with respect to features related to determining a priority in a transmission of packets, by choosing the order in which said respective queues are visited as a function of propagation conditions of a respective channel as recited in claim 1. As such, Galand fails to disclose the above-noted features recited in claim 1.

Claim 1 is allowable over the applied references for at least the foregoing reasons.

Amended independent claim 20 recites features similar to those described above with respect to claim 1, and is allowable for at least the same reasons as claim 1.

The dependent claims are allowable for at least the same reasons as their respective base claims, and further in view of the additional features recited therein.

For example, dependent claim 2 recites, “. . . among the users with the same first level of priority, the user with the highest buffer occupancy and the best channel propagation condition is chosen.” As discussed above with respect to claim 1, both Denkert and Galand (alone or in combination) fail to consider determining a priority in the transmission of packets as a function of propagation conditions of said respective channel. Thus, the references also fail to disclose features related to choosing a user based on a best channel propagation condition as recited in claim 2. As such, claim 2 is allowable for at least these additional reasons.

CONCLUSION

If any fees are required or if an overpayment is made, the Commissioner is authorized to debit or credit our Deposit Account No. 19-0733, accordingly.

All rejections having been addressed, applicants respectfully submit that the instant application is in condition for allowance, and respectfully solicit prompt notification of the same.

Respectfully submitted,
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